CLINICAL LABORATORY
SUSPECTED BIOTERRORISM (BT) EVENT MANAGEMENT GUIDELINE

Washington State Clinical Laboratory Advisory Council
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Covert Event

LRN Sentinel Laboratory*:
- Unusual number of clinical specimens received from patients with similar symptoms
- Preliminary laboratory findings suggestive of a BT agent (see back page)
- Receipt of clinical specimen to rule out (R/O) BT agents
- Unusual isolates from more than one patient

Laboratory notified of increased level of suspicion

Overt Event

Notification from Public Health authorities, Infection Control, local media, etc. of potential bioterrorist threat

Alert & inform as appropriate:
>Lab Director
>Supervisor
>Infection Control
>Medical Director

Inform clinician of pertinent laboratory results and status of confirmatory testing

Inform Local Health Jurisdiction officials

Preserve and secure specimen/ sample/all culture plates

Wait for instructions from Local Health Jurisdiction for follow-up steps

Customize the following telephone numbers for **YOUR** laboratory

Telephone Numbers for YOUR Facility:

Laboratory Director_____

Laboratory Supervisor_____

Lead Technologist_____

Infection Control_____

Local Health Jurisdiction_____

Local Health Jurisdictions will:
> Inform and involve Washington State Department of Health (DOH) Epidemiology staff and the DOH Public Health Laboratories to determine where suspect samples are to be sent for further studies
> Advise LRN Sentinel laboratory on: -which LRN Reference** laboratory to send the specimen/sample
-how to send the sample
-special packaging instructions

* **LRN Sentinel Laboratory:** Laboratories that perform Blood and/or CSF cultures to RULE OUT a BT agent.

** **LRN Reference Laboratory:** Laboratories specifically authorized by the Centers for Disease Control and Prevention to perform testing to RULE IN the BT agent.

ENVIRONMENTAL SAMPLES: DO NOT ACCEPT any type of non-clinical specimen such as powders, other suspicious substances, or packages. Contact your Local Health Jurisdiction. REFER all phone calls from people regarding environmental specimens to local law enforcement or to your local health jurisdiction.

LRN SENTINEL LABORATORY
REFERENCE TABLE

Agent	Culture Methods	Incubation Methods	Recovery Time	Colonial Morphology	Gram Stain Morphology	Preliminary Identification Tests	Action
Bacillus anthracis From: vesicle, sputum, CSF, blood, stool, rectal swab	Blood, Chocolate agar No growth on Mac	35◦C in ambient air or CO_2	8-24 hours	Non-hemolytic, gray colonies with ground glass appearance which "peaks" when touched	Large gram positive rods, oval, sub-terminal spores, no swelling of cell., capsules may be seen from specimen Gram stained	Catalase—positive Motility—negative	Refer to Laboratory designated by the local health jurisdiction
Francisella tularensis From: Blood, tissue, sputum, lymph nodes	Chocolate, BCYE, Thioglycollate, and Thayer-Martin agar Poor growth on BA No growth on Mac	35◦C in CO_2	~24-48 hours Hold up to 10 days	Very small, blue/gray colonies	Tiny gram negative coccobacilli poorly staining	Catalase—negative or weakly positive Oxidase—negative Urea—negative Motility—negative XV strip-no satelliting	Refer to Laboratory designated by the local health jurisdiction
Yersinia pestis From: Lymph node, blood, spleen, liver, sputum, bubo	Grows on routine culture media	22-28◦C in ambient air or CO_2	Grows slowly, 24-48 hours	Small, fried egg colonies may look like beaten copper	Gram negative rods which may show bi-polar staining	Catalase –positive Oxidase—negative Urea—negative Motility –negative TSI—weak acid slant, no change in butt	Refer to Laboratory designated by the local health jurisdiction
Brucella sp. From: Blood, bone marrow, tissue, CSF	Blood, Chocolate, Thayer-Martin or BCYE agar Some strains grow on Mac	35◦C in CO_2	Normally 24-72 hours, may take up to 30 days	Small, gray/white colonies, punctate	Small gram negative cocco-bacilli, poorly staining	Catalase—positive Oxidase—positive Urease—positive XV—negative	Refer to Laboratory designated by the local health jurisdiction
Clostridium botulinum From: Feces, tissue, wound exudates, gastric contents	Blood or brucella agar Chopped meat Broth	Anaerobic incubation at 35◦C	24-30 hours	Beta hemolytic with rhizoid colonies on moisture-free media; always swarms on damp media	Gram positive rods with oval, sub-terminal spores which swells the cell	Catalase—negative Indole—negative	Refer to Laboratory designated by the local health jurisdiction
Burkholderia pseudomallei & mallei From: Blood, sputum, wounds	Grows on routine culture media, strongly lactose + on Mac	35◦C in ambient or CO_2	24 hours *B. mallei* grows more slowly	Creamy tan to orange wrinkled colonies when old, fresh isolate may look like mercury	Gram negative rods similar to Pseudomonas	Catalase—positive Oxidase—positive *B.mallei*- var. oxidase/non-motile	Refer to Laboratory designated by the local health jurisdiction

References:

1. **Basic Diagnostic Testing Protocols for Level A Laboratories** (updated: December 18, 2002). Centers for Disease Control and Prevention, American Society for Microbiology, and the Association of Public Health Laboratories.
2. **Biological and Chemical Terrorism: Strategic Plan for Preparedness and Response**. CDC MMWR Volume 49/No.RR-4, April 21, 2001.
3. **Manual of Clinical Microbiology, 7th ed.**, American Society for Microbiology, 1999. Patrick R. Murray, editor-in-chief.
4. **USAMRIID's Medical Management of Biological Casualties, Handbook 4th ed**. February, 2001 – Appendix E.